AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listing of the claims in the application:

LISTING OF THE CLAIMS:

Claims 1-50 (canceled).

Claim 51. (currently amended) A method of producing a polypeptide self-antigen useful as a tumor-specific vaccine in a subject with a tumor or at risk of developing a tumor, wherein a first domain and a second domain of the polypeptide self-antigen are encoded by at least in part by a nucleic acid in the cells of said tumor, which polypeptide comprises two peptide domains connected to each other by a peptide linker, and said polypeptide includes an epitope or epitopes unique to, or overexpressed by, cells of said tumor, thereby distinguishing said tumor from normal cells and/or all other tumors (i) of the same or different histological type, (ii) in said subject or in another member of said subject's species, comprising the steps of:

(a) joining a nucleic acid encoding the first domain of the polypeptide to a nucleic acid encoding a first part of a linker to produce a first nucleic acid construct;

(b) joining the first nucleic acid construct encoding a second part of the linker to a nucleic acid encoding the second domain of the polypeptide to produce a second nucleic acid construct;

(c) incorporating said second nucleic acid construct into a plant expression vector in frame so that, when expressed, the polypeptide bears the first and second domain separated by the linker;

(d) transfecting a plant with the vector so that the plant is capable of producing the polypeptide;

(e) producing the polypeptide; and

(f) recovering the polypeptide as a soluble, correctly-folded protein.

Claim 52. (currently amended) The method of claim 51, wherein the polypeptide is a single chain wherein the first domain is the Ig V_H domain and the second domain is Ig V_L domain, both of which domains create an idiotype of a surface Ig of a B cell lymphoma, and wherein said ~~product~~ polypeptide induces an idiotype-specific response directed to said lymphoma upon administration to a subject.

Claim 53. (previously presented) The method of claim 51 wherein the plant is a plant cell.

Claim 54. (previously presented) The method of claim 51 further comprising mixing said polypeptide with a pharmaceutically acceptable carrier or excipient.

Claim 55. (currently amended) The method of claim 51 wherein the polypeptide recovered from said plant or plant cell ~~or organism~~ is in correctly folded form, without a need for denaturation and renaturation and mimics said epitope or epitopes in their native form and is capable of inducing an immune response in a mammal, including said subject, without a need for adjuvant or other immunostimulatory materials, so that administration of said polypeptide results in an antibody or cell-mediated immune response to said epitope or epitopes.

Claim 56. (previously presented) The method of claim 55 wherein the immune response is an idiotype-specific anti-lymphoma immune response when the polypeptide is administered to the subject in which said tumor originated.

Claim 57. (previously presented) The method of claim 51 wherein the plant is a plant cell.

Claim 58. (previously presented) The method of claim 51 wherein the plant expression vector is a transient plant expression vector that transiently produces the polypeptide.

Claim 59. (currently amended) The method of claim 51 wherein the polypeptide is an ~~immunoglobulins~~ immunoglobulin.

Claim 60. (previously presented) The method of claim 52 wherein the epitope or epitopes is a CDR.

Claim 61. (previously presented) The method of claim 54 further comprising mixing the polypeptide with an adjuvant.

Claim 62. (previously presented) The method of claim 54 further comprising mixing the polypeptide with an immunostimulatory cytokine or a chemokine.

Claim 63. (previously presented) The method of claim 54 wherein the immunostimulatory cytokine or a chemokine is GM-CSF.

Claim 64. (previously presented) The method of claim 51 wherein said domains are linked by an amino acid linker that (a) has between one and about 50 residues; (b) consists of between one and 12 different amino acids, and (c) facilitates secretion and correct folding of said polypeptide to mimic the tumor epitope in its native form in or on said tumor cell.

Claim 65. (previously presented) The method of claim 64 wherein the linker is a member of a randomized library of linkers that vary in size and sequence, and said library is encoded by nucleic acid sequences consisting of a repeated pattern of degenerate repeated triplet nucleotides having the following requirements; (i) position 1 of each repeated triplet cannot be the same nucleotide as position 2 of the repeated triplet;

(ii) position 2 of each repeated triplet cannot be the same nucleotide as position 3 of the repeated triplet; or (iii) position 1 of each repeated triplet cannot be the same nucleotide as position 3 of the repeated triplet.

Claim 66. (previously presented) The method of claim 65, wherein the nucleotide in the first and second positions of each repeated triplet is selected from any two of deoxyadenosine, deoxyguanosine, deoxycytidine or deoxythymidine.

Claim 67. (previously presented) The method of claim 66, wherein (i) position 1 of each repeated triplet is deoxyadenosine or deoxyguanosine; (ii) position 2 of each repeated triplet is deoxycytidine or deoxyguanosine; and (iii) position 3 of each repeated triplet is deoxythymidine.

Claim 68. (withdrawn) The polypeptide produced by the process of claim 51.